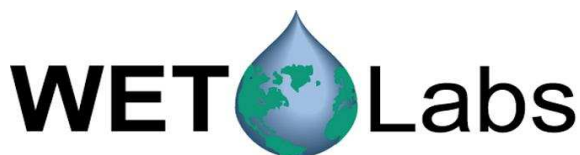


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C-Star Calibration

Date **April 14, 2014** S/N# **CST-330PR** Pathlength **25cm**

Analog output

V_d **0.060 V**
 V_{air} **4.776 V**
 V_{ref} **4.693 V**

Temperature of calibration water **21.3 °C**
Ambient temperature during calibration **21.9 °C**

Relationship of transmittance (Tr) to beam attenuation coefficient (c), and pathlength (x , in meters): **$Tr = e^{-cx}$**

To determine beam transmittance: **$Tr = (V_{sig} - V_{dark}) / (V_{ref} - V_{dark})$**

To determine beam attenuation coefficient: **$c = -1/x * \ln(Tr)$**

V_d Meter output with the beam blocked. This is the offset.

V_{air} Meter output in air with a clear beam path.

V_{ref} Meter output with clean water in the path.

Temperature of calibration water: temperature of clean water used to obtain V_{ref} .

Ambient temperature: meter temperature in air during the calibration.

V_{sig} Measured signal output of meter.